

As these images exhibit: contrasts from the full spectrum from within anaglyphically viewed color channels, they embody a useful improvement of composition as per 35 U.S.C 101.

Such images, are claimed in my N'Z', Aust' and U'K' Patents.

8-9.

Concerning McLaine US 6,037,971

Referred to in (0009) of my application as filed, McLaine was also prior addressed on pages 2-5 of my reply of 14 Jan' 05 (filed 18 Jan 05) to the action of 17 Oct' 04.

6,037,971 and other prior art, adjust the color channels (color planes) of anaglyphs that separate the left and right views.

6,037,971 claims a production method for an anaglyph that contains no pure blue or pure red pixels.

The problem with 6,037,971 is that pure color is in fact essential for anaglyphic display.

My application adjusts the color records in the left and right images of the stereo pair, that will become an anaglyph, to re-establish their contrasts for anaglyphic viewing.

6,037,971 refers to anaglyphically viewed retinal rivalry in an R/GB split anaglyph in paragraphs 11 and 15 under "Background Art" as:

"when viewing a pure red or pure blue region... one eye will perceive black and the other eye will perceive nothing" and also

"When color images are captured, it sometimes occurs that one of the colors utilized for representing the image may be overexposed or underexposed..."

However, retinal rivalry is due to the 'imaging' of colored objects. Red gel shows a red object as bright, while a blue gel shows it as dark. This is due to perception of unbalanced anaglyphically viewed contrasts. The unbalanced contrasts present colored objects as being under-exposed to one eye and over-exposed to the other.

The method of 6,037,971 Fig 5 involves an existing anaglyph (made via R/GB split of fig' 2) to then have the purity of its color channels altered.

See McLaine 'Brief Description Of Drawings'

FIG. 2 "image planes...combined to...produce a color 3-D image"

See 6,037,971 'Best Mode...' Fig' 5 text: "...unmodified 3-D color information such as produced at the output of the FIG. 2...is applied at the input purity monitor 500." "The net result is to eliminate pure red or pure blue pixels..."

Firstly, pure color is required for representing the relative horizontal displacement between the left and right views. Such area's are referred to as color fringes.

Color fringes represent where the left and right anaglyphic views do not overlap on the two-dimensional screen or page surface. They are visible unaided but should be invisible when viewed anaglyphically. Their color purity enables exclusive anaglyphic views to each eye. The pixel sampling of 6,037,971 is indiscriminate of such areas that require pure color.

Secondly, when a real object being imaged for anaglyphic viewing is in fact white, or partly so, pure red is required to represent white for the red gel view. Pure cyan (pure green and blue) are required to represent white for the cyan gel view. Conversely, when the object being imaged is black: pure cyan is required for the red gel view and pure red is required for the cyan gel view. These colors are overlayed and are perceived separately via color gels.

Thirdly, the degree of color impurity of the color channels is directly proportional to double imaging perceived.

Any color from outside the color channel will be seen in the opposing view.

6,037,971 Fig 6 shows how the red color plane is replaced with the green color plane from the same camera that is brightened to a varying 'nth degree'.

Replacing the red color plane with a green one when a threshold is reached, will assist retinal rivalry by providing a contrasts from the green third of the spectrum in common to both views. However, my method enables the contrasts from the full spectrum to both views.

In difference, my application teaches; separate and selective color treatments of the colors that make up the left and right images (before the anaglyph is made) so that the contrasts are re-established within the color channels for anaglyphic viewing.

Another fundamental difference of my application is that the color channels must remain pure, as per details listed under "color wash" (0140)-(0181)

See also page 15 under 'Post production' now (0203) "Additional treatments...that do not effect the color balance."

10-12.

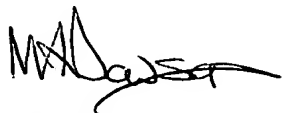
The compression of Swift 6,765,568 is about transmission and display from compressed storage.

In my application, luminosity compression of claim 57 refers to temporarily adjusting brightness and contrast of the stereo pair to assist the effectiveness of color channel allocation.

See my application (0129) "...to enable image allocation within an anaglyphic color channel."

Luminosity compression also assists with a predictive control of the overall brightness of an anaglyph as claimed in claim 56.

See application as filed (0121) and (0122) where a reduction in black contrarily darkens the anaglyph and an increase in black contrarily brightens the anaglyph. Claims 56 and 57 are presently claimed dependently on claim 1.



M. Dawson.